CALIBRATION STANDARD SPECIFICATION

FOR A

QUARTZ OPTICAL FLAT

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PROCUREMENT PACKAGE

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Code MS-33
Corona, CA 91718-5000

January 1994

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1. SCOPE

1.1 Scope. This specification defines the mechanical characteristics for Quartz Optical Flat. This equipment is intended to be used by Navy personn in shipboard and shorebased laboratories to calibrate or to assist in t calibration of flatness measuring and dimensional equipment. For the purpo of this specification, the Quartz Optical Flat shall be referred to as t QOF.

2. APPLICABLE DOCUMENTS

2.1 Controlling Specifications. MIL-T-28800, "Military Specification, Test Equipment for use with Electrical and Electronic Equipment, Genera specification for," and all documents referenced therein of the issues effect on the date of this solicitation shall form a part of thi specification.

3. REQUIREMENTS

3.1 General. The QOF shall conform to the Type II, Class 5, style P requirements as specified in MIL-T-28800 for Navy shipboard and shorebased as modified below. The use of material restricted for Navy use shall governed by MIL-T-28800. Only the physical/mechanical requirements of MIL 28800 apply to the QOF.

3.1.1 Design and Construction. The QOF design and construction shall meet the requirements of MIL-T-28800 for Type II equipment.

3.1.2 Power requirements. The QOF shall not require power.

3.1.3 Dimensions and Weight. Maximum dimensions are given in paragraph 3.5.1. The QOF weight shall not exceed 1 pound.

3.2 Environmental Requirements. The QOF shall meet the environmental requirements for a Type II, Class 5, Style P equipment with the deviatic specified below.

3.2.1 Temperature and Humidity. The QOF shall meet the conditions below:

	Temperature (^{o}C)	Relative Humidity (%)
In use	10 to 30	95
	30 to 40	75
In Storage	-40 to 70	Not Controlled

3.2.2 Electromagnetic Compatibility. The electromagnetic compatibility requirements of MIL-T-28800 are not applicable.

3.3 Reliability. The reliability requirements of MIL-T-28800 are not applicable.

3.3.1 Calibration Interval. The QOF shall have an 85% or greater probability of remaining within tolerances of all specifications at the end of a 12 mo period.

3.4 Maintainability. The QOF shall meet the maintainability requirements as specified in MIL-T-28800.

3.5 Performance Requirements. The QOF shall provide the following capability as specified below.

3.5.1 Dimensions. The QOF shall meet the following dimensional requirements.

3.5.1.1 Diameter. The QOF shall have a diameter of 3.0 inches.

3.5.1.2 Thickness. The QOF shall have a thickness of 11/16 inches.

3.5.2 Surface Characteristics. The QOF shall have the following surface characteristics.

3.5.2.1 Single Surface. The QOF shall be the single surface type.

3.5.2.2 Surface Flatness. The QOF shall have a surface flatness of +/- 0.000002 inches.

3.5.3 Material. The QOF shall be made of a quartz material.

3.6 Manual. At least two copies of an operation and maintenance manual shal be provided. The manual shall meet the requirements of MIL-M-7298.

3.6.1 Calibration Procedure. The manual shall include a calibration procedure in accordance with MIL-M-38793.

3.7 Accessories. The QOF shall include the following accessories.

3.7.1 Carrying Case. The QOF shall have a wood carrying case that is felt lined.